the Great Lakes Basin will rely on cooperation among U.S. partners—including EPA, other federal entities, state regulatory agencies, and the private sector—and counterpart Canadian organizations. Where the United States and its partner countries differ on program development or focus, or when a partner country fails to maintain environmental programs, enforce existing laws, or meet treaty obligations, the effectiveness of our initiatives might be compromised. Recovery of the stratospheric ozone layer is contingent on international adherence to commitments made under the Montreal Protocol. Similarly, the success of international agreements on toxic substances is contingent both on U.S. provision of technical assistance and financial resources to developing countries and on the commitment of other developed countries to provide similar assistance. Failing the provision of such assistance, key source countries might not develop the technical skills and management infrastructure necessary to implement the terms of such agreements.

Political considerations and other factors beyond our influence (e.g., civil strife, natural disasters, sudden economic downturns, demographic changes) might also affect progress under Goal 6. Demographic changes along the U.S./Mexico border, where the combined border population might double by 2020, could seriously strain the area's environmental infrastructure and make achieving our strategic objectives more difficult. Accounting for such factors as we develop performance measures presents a continuing challenge under Goal 6.

We also develop our international programs in conjunction with other federal agencies, including the Department of State, the Agency for International Development, the Department of Commerce, and the Department of Energy. The continued interest in and commitment to environmental initiatives among these partner agencies will influence the success of our programs. The same holds true for our cooperative programs with state and local governments, especially along our national borders. The continued collaboration of business and industry groups, environmental organizations, and multilateral organizations (such as the World Health Organization) will also affect the success of these programs.

Finally, the integration of environmental issues into trade policies poses particularly difficult challenges. Numerous countries fear that the linkages between trade liberalization and environmental protection might limit their market access. We will continue working directly with environmental ministries in other countries to demonstrate that trade liberalization and enhanced environmental protections are not mutually exclusive.

Goal 7: Quality Environmental Information

The public and decision makers at all levels will have access to information about environmental conditions and human health to inform decision making and help assess the general environmental health of communities. The public will also have access to educational services and information services and tools that provide for the reliable and secure exchange of quality environmental information.

Importance of This Goal

Information about the environment—environmental characteristics; physical, chemical, and biological processes; and chemical and other pollutants—underlies all environmental management decisions. The availability of and access to quality information and the analytical tools needed to understand it are essential for measuring environmental improvements and assessing progress. Clearly, the more accurate, complete, timely, and accessible is our data, the better we can make decisions and assess progress. This goal recognizes the

importance of working with the public, our partners, and stakeholders to collect, manage, and make available the information needed at the national, regional, state, and local levels to make sound decisions leading to a cleaner, healthier environment.

Informing decision makers and providing access to sound environmental information are essential components of a comprehensive environmental protection program. Environmental information can better enable the public to understand conditions and make informed decisions about protecting the health and the environment of local communities. It can lead to creative and sustainable solutions to environmental problems and opportunities for pollution prevention. Quality environmental information is crucial to sound decision making and to establishing public trust and confidence in those decisions.

The unprecedented changes in information technology over the past few years, combined with an increasing public demand for information, are fundamentally altering the way the Agency and the states collect, manage, analyze, use, secure, and provide access to quality environmental information. We are working with the states and tribes to strengthen our information quality, leverage information maintained by other government organizations, and develop new tools that provide the public with simultaneous access to multiple data sets, allowing users to understand local, state, regional, and national environmental conditions. Access to quality data and tools to understand these data may allow decision makers to make more informed decisions about public environmental policies.

Objectives

- Through 2006, EPA will continue to increase the availability of quality health and environmental information through educational services, partnerships, and other methods designed to meet EPA's major data needs, make data sets more compatible, make reporting and exchange methods more efficient, and foster informed decision making.

- By 2006, EPA will provide access to new analytical or interpretive tools beyond 2000 levels so that the public can more easily and accurately use and interpret environmental information.

- Through 2006, EPA will continue to improve the reliability, capability, and security of EPA's information infrastructure.

Results We Intend to Achieve

Over the next several years, we will improve every American's access to EPA's integrated environmental data, educational services, and analytical tools for evaluating environmental conditions and trends, and we will provide a secure environment for data storage and retrieval. These accomplishments will enable EPA, our partners, and the public to better understand potential environmental impacts, opportunities for preventing pollution, and

uncertainties and possible trade-offs that may be considered in making many environmental decisions. We will offer reliable environmental information services to those who do not have access to the Internet at home, work, or school. We will also work to improve the efficiency of data exchange with states, tribes, and industry, while reducing their reporting burdens. With help from the Agency's partners and stakeholders, we expect to achieve the following specific accomplishments:

- By 2006, EPA will create an information network for reliable and accurate data exchange that ensures greater than 95 percent data consistency between EPA and participating states, and by 2003, achieve greater than 95 percent accuracy in facility name and address information for facilities reporting air, water, waste, and Toxic Release Inventory (TRI) program data, and implement an Agency-wide Information Plan to identify and fill our high-priority information needs.

- By 2006, EPA will address the changing needs of the public to know more about chemical releases, conditions, status, and trends and also achieve a 15 percent burden reduction from 2000 levels for facilities reporting TRI program data.

- By 2006, 75 percent of the Agency's major environmental data, information, tools, and information products created since 2001 will be available in multiple formats and distribution vehicles and EPA will have institutionalized a program of advance notification to partners and stakeholders of significant information products. EPA will use advisory, educational, and outreach programs; partnerships; and customer feedback to improve our information products.

- By 2006, EPA will define, characterize, and identify the intended use of its environmental data and document any known limitations of the data for all of its new major analytical products.

- By 2006, EPA will develop new analytical tools that will enable all stakeholders and state and tribal partners to query data for their own specific purposes; provide access to new types of environmental or health data that are relevant to localities; facilitate the public's ability to access and use Agency, state, and other data; and increase by 10 percent, compared to 2000, the number of communities with real-time, geographically-based environmental information.

- By 2006, all EPA information technology services will meet or exceed industry standards for combined cost and quality of service.

- Through 2006, EPA will continue to ensure the integrity, availability, and confidentiality of EPA's data against known likely risks, using evolving industry standards.

Means and Strategies

EPA is actively working to ensure that we keep pace with the rapid advances in information technology and meet the growing demand for reliable, quality environmental information. Collaboration and cooperation with our federal, state, and tribal partners and interested stakeholders will be crucial to our success. Our principal strategy for achieving this will be the development of an Information Plan that assesses the Agency's environmental direction, establishes the framework that will strategically identify and address information needs, and matches the information and technology resources to meet those needs. The Plan will also establish processes for addressing data needs and identify potential data collection efficiencies and opportunities to leverage information resources with our federal partners, such as the U.S. Geological Survey and

others involved in environmental activities, to meet information needs common to multiple programs. EPA will continue to pursue the strategic use of information in priority setting, measuring performance, assessing progress, and making decisions.

The Information Plan will be guided by six strategic principles:

Expand the American Public's Right-to-Know About the Environment

Providing the public electronic and non-electronic access to accurate and reliable environmental data collected by EPA and our partners and stakeholders supports our mission and our partners' and stakeholders' efforts to protect human health and the environment. Increased public access advances citizens' understanding and involvement in environmental issues and enables them to make better decisions that help protect their families and their communities.

Integrate Information

The Agency envisions a comprehensive and integrated information exchange network to facilitate sharing information among EPA, the states, other federal agencies, tribes, localities, and the regulated community. The network will improve environmental decision making, improve data quality and accuracy, ensure security of sensitive data, avoid data redundancy, and reduce the burden on those who provide and those who access information. Key features include standardized data formats and definitions, a centralized approach to receiving and distributing information, and improved access to timely and reliable environmental information.

Enhance Information Quality

To increase the value of environmental information for all stakeholders, the Agency will seek customer feedback and systematically improve information usability, clarity, accuracy, reliability, and scientific soundness. To this end, we will institute compatible data standards and ensure that data quality is known and appropriate for intended uses. Enhancing the quality of environmental information will accord all environmental players and interested parties a more accurate, comprehensive environmental "picture."

Foster Information-Based Decisions

EPA recognizes the need to evaluate the appropriateness of data in the context of specific decisions. The Agency is committed to communicating information and making appropriate data and information accessible for improved environmental decision making. We will work with our partners to enhance the use of quality environmental data in setting priorities and making decisions.

Reduce Burden

EPA will strive to streamline information collection, making it more efficient and cost-effective by reducing unnecessary cost and burden to EPA, states, tribes, and the regulated community. The Agency will critically examine the information reporting burdens we have placed on our partners and on the regulated community and ensure that information collection addresses specific needs.

Strengthen and Secure EPA's Information Infrastructure

Strengthening and securing EPA's information infrastructure is fundamental to increasing the availability of environmental information. EPA will remain vigilant in maintaining a strong and secure information infrastructure that directly supports the mission needs of the Agency. A secure information infrastructure is essential to maintaining Congressional and public confidence in EPA's stewardship of environmental and regulatory information.

Two of these six strategic principles, integrating information and enhancing information quality,

require EPA to find significantly different ways of doing business. As we improve our existing information systems and develop new ones, we must work toward an integrated information network, avoiding data redundancy and utilizing compatible database designs, standard data definitions, and a common technological platform. This represents a departure from the old "stovepipe" way of designing information systems. Systems developers will need to think of their systems as integral components of a larger, integrated network that extends beyond EPA to our state and tribal partners.

Our working relationships with the states and tribes will continue to be a major factor in our ability to achieve the objectives of Goal 7. Our partners play major roles in all of our highest priority efforts, including the information exchange network and the Information Plan. EPA will continue to work with state and tribal governments through existing forums, such as the Environmental Council of the States and the Agency's Tribal Caucus, and to involve state and tribal representatives on specialized advisory work groups and task forces. We will continue and expand our outreach to the public and to industry stakeholders through public meetings and the use of public advisory committees.

The Agency will work to instill a more holistic and multimedia approach to environmental information. Our heightened emphasis on information quality will require a new "information quality culture" within the Agency. Our quality system is designed to provide the "right data" to the Agency and must be an integral aspect of Agency program management activities. Decision makers and data users ensure that measurements and data are of known and documented quality and that the quality is sufficient for the data's intended uses. EPA will review the quality of its information to ensure its accuracy, objectivity, utility, and integrity.

Relating Annual Performance Goals to Strategic Objectives

The success of EPA's information programs will be reflected in our partners' and stakeholders' ability to make sound decisions based on quality information to solve the nation's environmental problems. EPA is playing a major role in providing data and tools tailored to their needs. Rather than making abstract connections between improvements in information access and environmental outcomes, our performance measures for this goal emphasize outcomes that are important to EPA programs and our state and tribal partners and the extent to which we provide integrated, quality environmental information and tools to the public efficiently and effectively.

For example, to measure our progress toward increasing the availability and accessibility of quality environmental information, we will set annual goals and select performance measures that track our progress in terms of improved consistency between the data in our systems and the data held by states and tribes, decreasing error rates in our facility identification information, and increasing the number of people and organizations accessing our information. We will demonstrate our progress toward improving the public's ability to use and understand our data by (1) ensuring that the majority of our analytical products, both electronic and non electronic, describe the appropriate uses and limitations of the data and (2) increasing the number of communities with access to real-time information about their local environment. Finally, EPA will demonstrate improvements in the reliability, capability, and security of our information infrastructure by ensuring that all of our information technology services meet or exceed accepted industry standards. We will also ensure that our information network is designed to minimize the potential impact of security threats and use the best methods for ensuring that those who access the most sensitive parts of our network

are authenticated each time they access our system.

External Factors

EPA's information comes from many sources—states, tribes, and local governments; industry; federal agencies; volunteer monitoring programs; and our own environmental monitoring, assessment, and research programs. Therefore, working in partnership with state and tribal governments is an essential element of our information programs, and seeking advice and input from the regulated community and the public will ground our information programs and approaches and make them more responsive to stakeholders' needs. To achieve an integrated information network that increases efficiency and fosters information sharing, we must work with those who provide and use EPA's information to ensure that data are used properly, maintained effectively, and protected appropriately.

We expect to see dramatic changes in technology over the course of the next five years. To be efficient and cost-effective, EPA's information systems and technology infrastructure must be flexible enough to respond to changes and take advantage of innovations in technology. As the world becomes more dependent on electronic commerce, issues such as information security have become a dominant concern in both the public and private sectors. To reduce our vulnerabilities and ensure that we can meet current and future information needs, EPA's systems and technology infrastructure must keep pace with advances in available technology.

Our evolving user community will also affect the success of our information efforts. As more states develop the ability to integrate environmental information, we must adjust our own systems to accommodate these developments. As we provide technical assistance to tribes and improve our ability to understand and address environmental issues in Indian country, the number of tribes able to interact with us electronically will increase, and their need for new and improved information tools will expand. Local citizens' organizations and the public are also increasingly involved in environmental decision making, and their need for information and more sophisticated analytical tools is growing.

Finally, the current federal budget climate requires us to work closely with our federal partners to leverage our collective information holdings and find innovative information tools that have environmental applications. We must also consider our user community and ensure that those without electronic access have the information they need to protect their health and local environments and to participate in decisions that affect them.

Goal 8: Sound Science, Improved Understanding of Environmental Risk, and Greater Innovation to Address Environmental Problems

EPA will develop and apply the best available science for addressing current and future environmental hazards as well as new approaches toward improving environmental protection.

Importance of This Goal

Under Goal 8, EPA focuses on our commitment to using science and innovation to reduce risk—the possibility of unwanted, adverse consequences to human life, health, or the environment. By identifying important sources of risk, science informs our priority setting, enhances the credibility of our policies, and guides our deployment of resources. Goal 8 also highlights EPA's commitment to innovative, continuous improvement in the ways in which we conduct our business and accomplish our